

Appln No. N/A
Amdt date December 17, 2004

REMARKS/ARGUMENTS

The introduction was amended to cross reference the applications on which the application is based.

The abstract has also been amended. Enclosed in the replacement abstract.

It is respectfully requested that the foregoing preliminary amendment be entered prior to examination.

Respectfully submitted,
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Abstract

A space-time encoding and decoding for a frequency selective fading channel. An encoder takes two independent data fields of a time slot in input data as a processing unit with space-time orthogonal encoding method, encodes them and generates two data vectors, and two diversity signals, and transmits them simultaneously, each through one diversity antenna. A receiving terminal neglects mutual interference between said two diversity signals caused by non-orthogonality, performing joint detection only taking into account affect to said two diversity signals from multipath interference and multi-user interference, obtaining a decoding result. Implementing interference counteraction based on result of joint detection to remove interference between the two diversity signals, and then returning to the previous step to implement iteration for decoding. An independent data field as a processing unit for encoding and decoding, and the decoding takes an iteration method based on joint detection and interference counteraction.